#### § 34.80

code\_of\_federal\_regulations/
ibr\_locations.html. Other methods of demonstrating compliance may be approved by the FAA Administrator with the concurrence of the Administrator of the EPA.

[Doc. No. FAA-2009-0112, 74 FR 19128, Apr. 28, 2009]

# Subpart H—Test Procedures for Engine Smoke Emissions (Aircraft Gas Turbine Engines)

#### §34.80 Introduction.

Except as provided under §34.5, the procedures described in this subpart shall constitute the test program to be used to determine the conformity of new and in-use gas turbine engines with the applicable standards set forth in this part. The test is essentially the same as that described in §§ 34.60-34.62, except that the test is designed to determine the smoke emission level at various operating points representative of engine usage in aircraft. Other smoke measurement systems may be used if shown to yield equivalent results and if approved in advance by the Administrator or the Administrator of the EPA.

#### § 34.81 Fuel specifications.

Fuel having specifications as provided in §34.61 shall be used in smoke emission testing.

## § 34.82 Sampling and analytical procedures for measuring smoke exhaust emissions.

The system and procedures for sampling and measurement of smoke emissions shall be as specified by Appendix 2 to ICAO Annex 16, Environmental Protection, Volume II, Aircraft Engine Emissions, Second Edition, July 1993, effective July 26, 1993, through Amendment 3 (March 20, 1997). This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. This document can be obtained from the International Civil Aviation Organization (ICAO), Document Sales Unit, 999 University Street, Montreal, Quebec H3C 5H7, Canada, phone +1 514-954-8022, or http://icaodsu.openface.ca/ mainpage.ch2. Copies can be reviewed at the FAA New England Regional Office, 12 New England Executive Park, Burlington, Massachusetts, 781–238–7101, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: <a href="http://www.archives.gov/">http://www.archives.gov/</a>

federal\_register/

code\_of\_federal\_regulations/ibr\_locations.html.

[Doc. No. FAA-2009-0112, 74 FR 19128, Apr. 28, 2009; Amdt. 34-4, 74 FR 26779, June 4, 2009]

#### §§ 34.83-34.88 [Reserved]

### § 34.89 Compliance with smoke emission standards.

Compliance with each smoke emission standard shall be determined by comparing the plot of SN as a function of power setting under the applicable emission standard under this part. The SN at every power setting must be such that there is a high degree of confidence that the standard will not be exceeded by any engine of the model being tested. An acceptable alternative to testing every engine is described in Appendix 6 to ICAO Annex 16, Environmental Protection, Volume II, Aircraft Engine Emissions, Second Edition, July 1993, effective July 16, 1993, including all amendments through Amendment 3 of March 20, 1997. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. This document can be obtained from the International Civil Aviation Organization (ICAO), Document Sales Unit, 999 University Street, Montreal, Quebec H3C 5H7, Canada, phone +1 514-954-8022, or http://icaodsu.openface.ca/mainpage.ch2. Copies can be reviewed at the FAA New England Regional Office, 12 New England Executive Park, Burlington, Massachusetts, 781-238-7101, or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: http:// www.archives.gov/federal register/  $code\_of\_federal\_regulations$ 

ibr\_locations.html. Other methods of demonstrating compliance may be approved by the FAA Administrator with the concurrence of the Administrator of the EPA.

[Doc. No. FAA-2009-0112, 74 FR 19128, Apr. 28, 2009]

## PART 35—AIRWORTHINESS STANDARDS: PROPELLERS

#### Subpart A—General

Sec.

- 35.1 Applicability.
- 35.2 Propeller configuration.
- 35.3 Instructions for propeller installation and operation.
- 35.4 Instructions for Continued Airworthiness.
- 35.5 Propeller ratings and operating limitations.
- 35.7 Features and characteristics.

#### Subpart B—Design and Construction

- 35.11 [Reserved]
- 35.13 [Reserved]
- 35.15 Safety analysis.
- 35.17 Materials and manufacturing methods.
- 35.19 Durability.
- 35.21 Variable and reversible pitch propellers.
- 35.22 Feathering propellers.
- 35.23 Propeller control system.
- 35.24 Strength.

#### Subpart C—Tests and Inspections

- 35.31 [Reserved]
- 35.33 General.
- 35.34 Inspections, adjustments and repairs.
- 35.35 Centrifugal load tests.
- 35.36 Bird impact.
- 35.37 Fatigue limits and evaluation.
- 35.38 Lightning strike.
- 35.39 Endurance test.
- 35.40 Functional test.
- 35.41 Overspeed and overtorque.
- 35.42 Components of the propeller control system.
- 35.43 Propeller hydraulic components.
- 35.45 [Reserved]
- 35.47 [Reserved]

APPENDIX A TO PART 35—INSTRUCTIONS FOR CONTINUED AIRWORTHINESS

Authority: 49 U.S.C. 106(g), 40113, 44701-44702, 44704.

SOURCE: Docket No. 2095, 29 FR 7458, June 10, 1964, unless otherwise noted.

#### Subpart A—General

#### § 35.1 Applicability.

(a) This part prescribes airworthiness standards for the issue of type certifi-

cates and changes to those certificates, for propellers.

- (b) Each person who applies under part 21 for such a certificate or change must show compliance with the applicable requirements of this part.
- (c) An applicant is eligible for a propeller type certificate and changes to those certificates after demonstrating compliance with subparts A, B and C of this part. However, the propeller may not be installed on an airplane unless the applicant has shown compliance with either §23.907 or §25.907 of this chapter, as applicable, or compliance is not required for installation on that airplane.
- (d) For the purposes of this part, the propeller consists of those components listed in the propeller type design, and the propeller system consists of the propeller and all the components necessary for its functioning, but not necessarily included in the propeller type design.

[Amdt. 35–3, 41 FR 55475, Dec. 20, 1976, as amended by Amdt. 35–8, 73 FR 63346, Oct. 24, 2008]

#### §35.2 Propeller configuration.

The applicant must provide a list of all the components, including references to the relevant drawings and software design data, that define the type design of the propeller to be approved under §21.31 of this chapter.

[Amdt. 35-8, 73 FR 63346, Oct. 24, 2008]

### § 35.3 Instructions for propeller installation and operation.

The applicant must provide instructions that are approved by the Administrator. Those approved instructions must contain:

- (a) Instructions for installing the propeller, which:
- (1) Include a description of the operational modes of the propeller control system and functional interface of the control system with the airplane and engine systems;
- (2) Specify the physical and functional interfaces with the airplane, airplane equipment and engine;
- (3) Define the limiting conditions on the interfaces from paragraph (a)(2) of this section;
- (4) List the limitations established under § 35.5;